United States Patent [19]

Wimmers et al.

[54] **APPARATUS FOR DISPENSING COFFEE HAVING A FOAMED SURFACE**

[75] Inventors: James E. Wimmers, Marysville; Thomas B. Winters, Raymond, both of Ohio

[73] Assignee: Nestec, S.A., Vevey, Switzerland

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[56] **References Cited**

U.S. PATENT DOCUMENTS

3,171,344 3/1965 Mathieu 99/287
4,357,861 11/1982 Silvestro 99/323.3

Primary Examiner—Robert W. Jenkins

[57] **ABSTRACT**

Apparatus for producing and dispensing a reconstituted coffee beverage having a thick layer of foamed coffee on its surface, similar in appearance to cappuccino coffee beverage. A measured amount of dehydrated coffee concentrate, such as spray dried instant coffee, and a small amount of cold water are combined, with vigorous agitation in a cooled mixing chamber to form a cold, foamed coffee concentrate. Upon formation of the foamed concentrate, a controlled amount of hot water is introduced into the mixing chamber to dilute the foamed concentrate while substantially retaining the foamed structure to thereby provide a liquid reconstituted coffee fraction of a desired concentration, and a foamed coffee fraction of similar concentration. The resulting beverage is then discharged from the mixing chamber into a cup, with the foamed coffee fraction resting on the surface of the liquid coffee fraction to provide a hot coffee beverage having a thick layer of stable foam on the surface of the beverage. A timer mechanism is provided to sequentially control the introduction of dehydrated coffee, cold water and hot water into the mixing chamber, and the discharge of the reconstituted beverage from the chamber.

10 Claims, 1 Drawing Sheet